



Three Years into a Periodical Use Study

By: Gillian (Jill) D. Ellern & Nancy Newsome

Abstract

Presentation addressing the impact of NC LIVE on serials collection development at WCU after three years of study.

Ellern, G.D., & Newsome, N. (2001, October 25). *Three Years into a Periodical Use Study* [Presentation]. Carolina Innovate Users Group Meeting, Winthrop, South Carolina.

Archived version from NC DOCKS available at: <http://libres.uncg.edu/ir/wcu/listing.aspx?styp=ti&id=37401>.

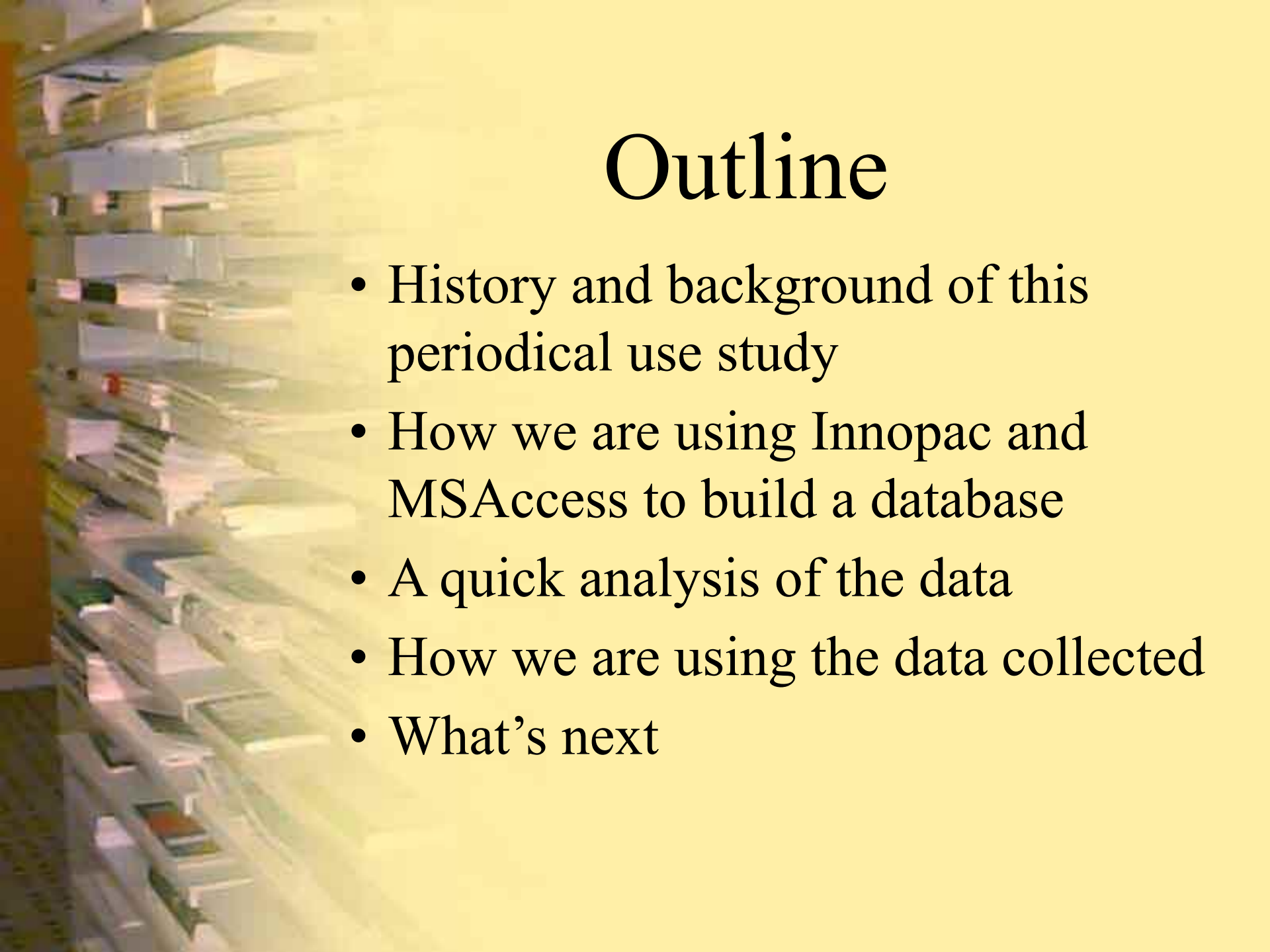
Three years into a Periodical Use Study

CIUG

October 2001

Jill Ellern

Western Carolina University



Outline

- History and background of this periodical use study
- How we are using Innopac and MSAccess to build a database
- A quick analysis of the data
- How we are using the data collected
- What's next



Why Do a Use Study?

- Monitor the relevance of periodical collection
 - Is the collection meeting the needs of students, faculty, community?
- Budgetary management concerns
- Detect trends unique to our institution
- Bolster credibility of our data

Traditional Questions

- titles receive no use or very low use
 - identifying possible candidates for cancellation or alternative access
- titles receive use of only current issues
 - thus aiding retention decisions
- titles receive the most use
 - possible subject areas in need of strengthening and protection from cancellation



Other Questions

- What are the effects of electronic databases on use of paper periodicals
 - Not so easy to deduce



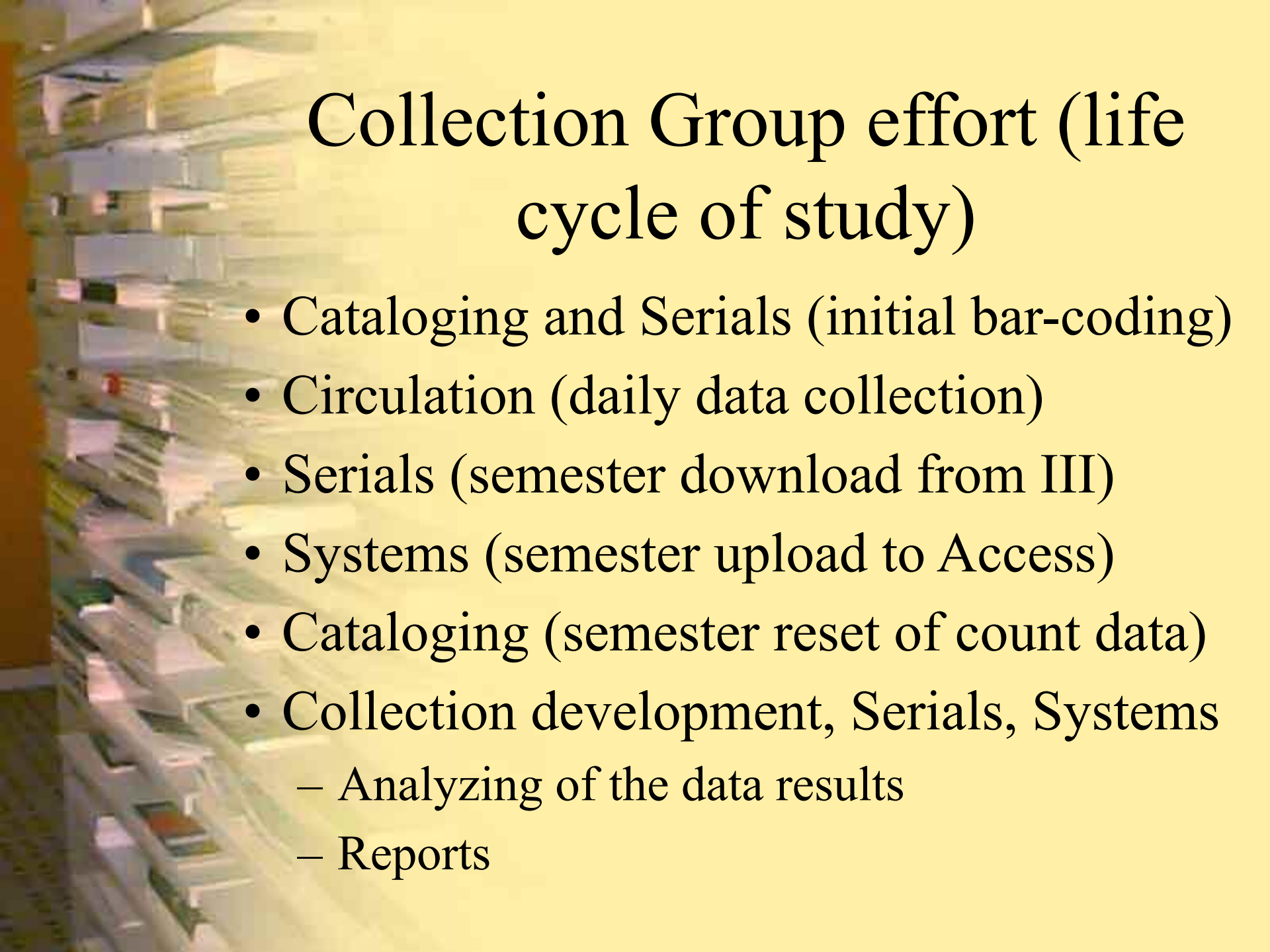
Collection Development for Serials

- Collection development at WCU
 - 3-year cycle
 - Periodical review session with faculty
 - Cost and inflation info review process
 - Course review process
 - Network holdings



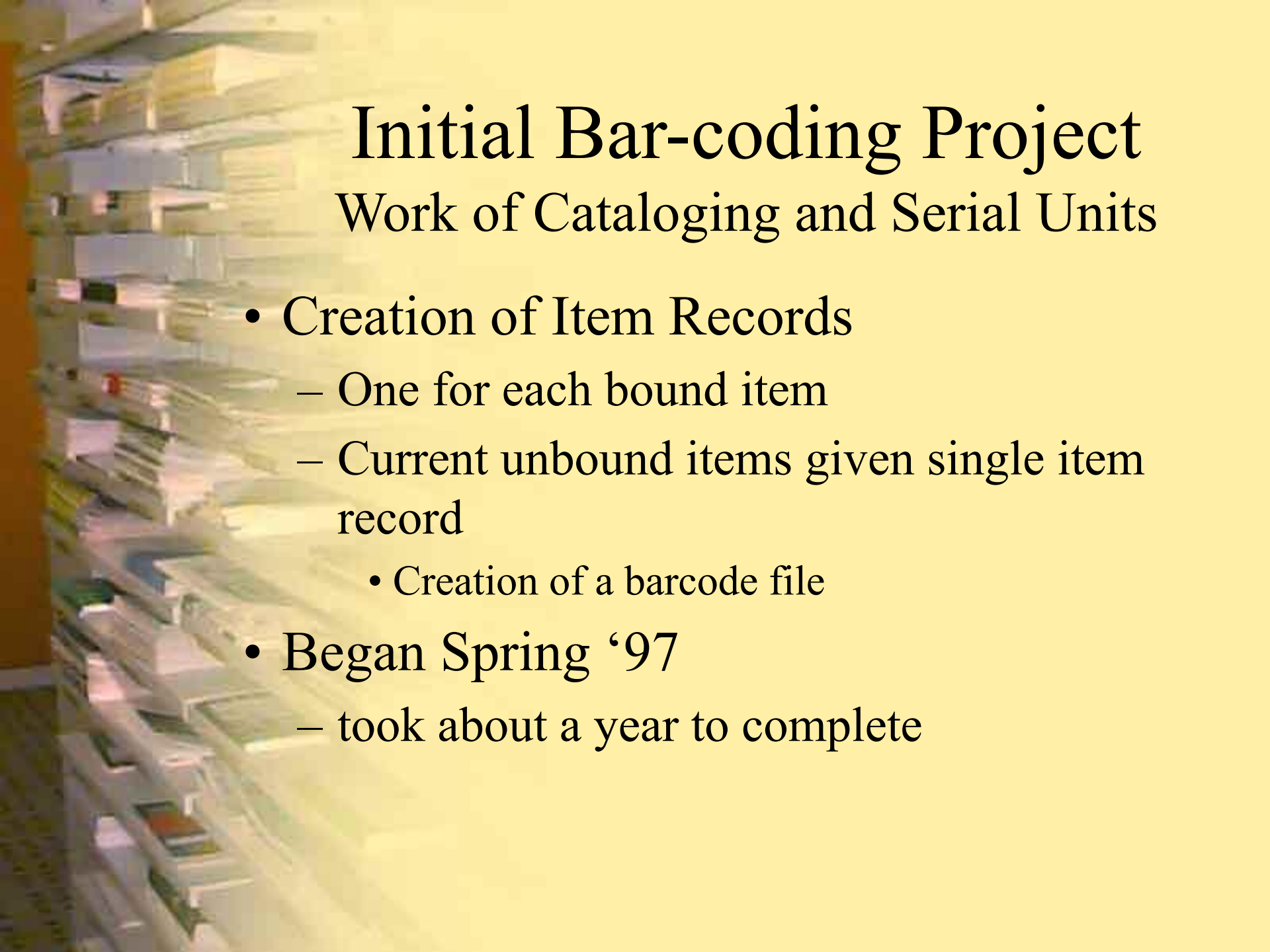
Use Study Parameters

- Time table
 - Began as 2-year study in the Spring semester 1998
 - Use statistics collected by semester
- Use of Innopac as the primary data gathering tool
 - a re-shelving study
- Use of MS Access database
 - storage and reporting



Collection Group effort (life cycle of study)

- Cataloging and Serials (initial bar-coding)
- Circulation (daily data collection)
- Serials (semester download from III)
- Systems (semester upload to Access)
- Cataloging (semester reset of count data)
- Collection development, Serials, Systems
 - Analyzing of the data results
 - Reports



Initial Bar-coding Project

Work of Cataloging and Serial Units

- Creation of Item Records
 - One for each bound item
 - Current unbound items given single item record
 - Creation of a barcode file
- Began Spring '97
 - took about a year to complete



Work of Circulation Unit

- Daily data collection
 - Material gathered from tables, etc. and taken to Circulation sorting area
 - Each piece counted using the “Count IN-LIBRARY use” function
 - Card file for current unbound issues
 - then material is re-shelved
- Became so much a part of staff routine they agreed to continue it indefinitely!



Work of Serials Unit

- At end of each semester
 - Creating the list
 - Extracting the data from Innopac
- Performing clean-up projects on Innopac and MS Access
- Come up with ideas for reports
- Help analyze the data



Work of Systems Unit

- At end of each semester
 - Clean up the data from Innopac
 - Import data into MS Access
- Create Reports
 - Creation of other tables/data
 - Moving data to other programs
- Maintain Data
 - Modify data structure as needed



Work of Cataloging Unit

- End of each semester
 - Reset counter field using rapid update
- Daily
 - Keeping up bibliographic data in Innopac
 - Reality check when we want more data



Creating a Collection Development Database

- Download or collect the data into a file
- Massage and clean up
- Import to MS Access or other DBMS
- Connect data elements in the software
 - Queries, data structure, relationships
- Create reports using data
- Adding other data or linking data

Types of Data Gathering

- Semester use data from Innopac
- Collecting other data from Innopac
- Collection development data
 - from campus info sources
 - from outside sources



Gathering Use Data from Innopac

(Done at the end of each Semester)

- Innopac's canned statistics
 - Problems (We stopped using it)
 - Consortium data mixed in
 - Time data not available
 - Does record the zero use titles
- Create a list of items
 - IUSE > zero and location is WCU's
 - Data needed includes bib number, volume field, IUSE and LOC fields from item record

Downloading Procedures

- Using IFTP from FileSave
 - Move it to a local PC using FTP software
- What data and how it's formatted
 - Separate data by locations
 - All in one file

How the Data Looks from Innopac

RECORD # = b16940568.

v.8 (1976) .

INTL USE = 1. LOCATION = cpbgf.

RECORD # = b16940568.

v.14 (1980) .

INTL USE = 1. LOCATION = cpbgf.

How We Want Data to Look

b16940568	v.8 (1976)	1	cpbgf	Sp98
b16940568	v.14 (1980)	1	cpbgf	Sp98

Bnumber	Volume	Use	Location	Semester
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- Tabs delimited


Massaging and Cleaning Up Data

- Retrieve into MS Word
- Search and replace
- Fix multi bib problems
- Add semester data
- Add field names to top of columns
- Save as text
- Retrieve into MS Excel
- Check then save as Excel worksheet
- Load into MS Access



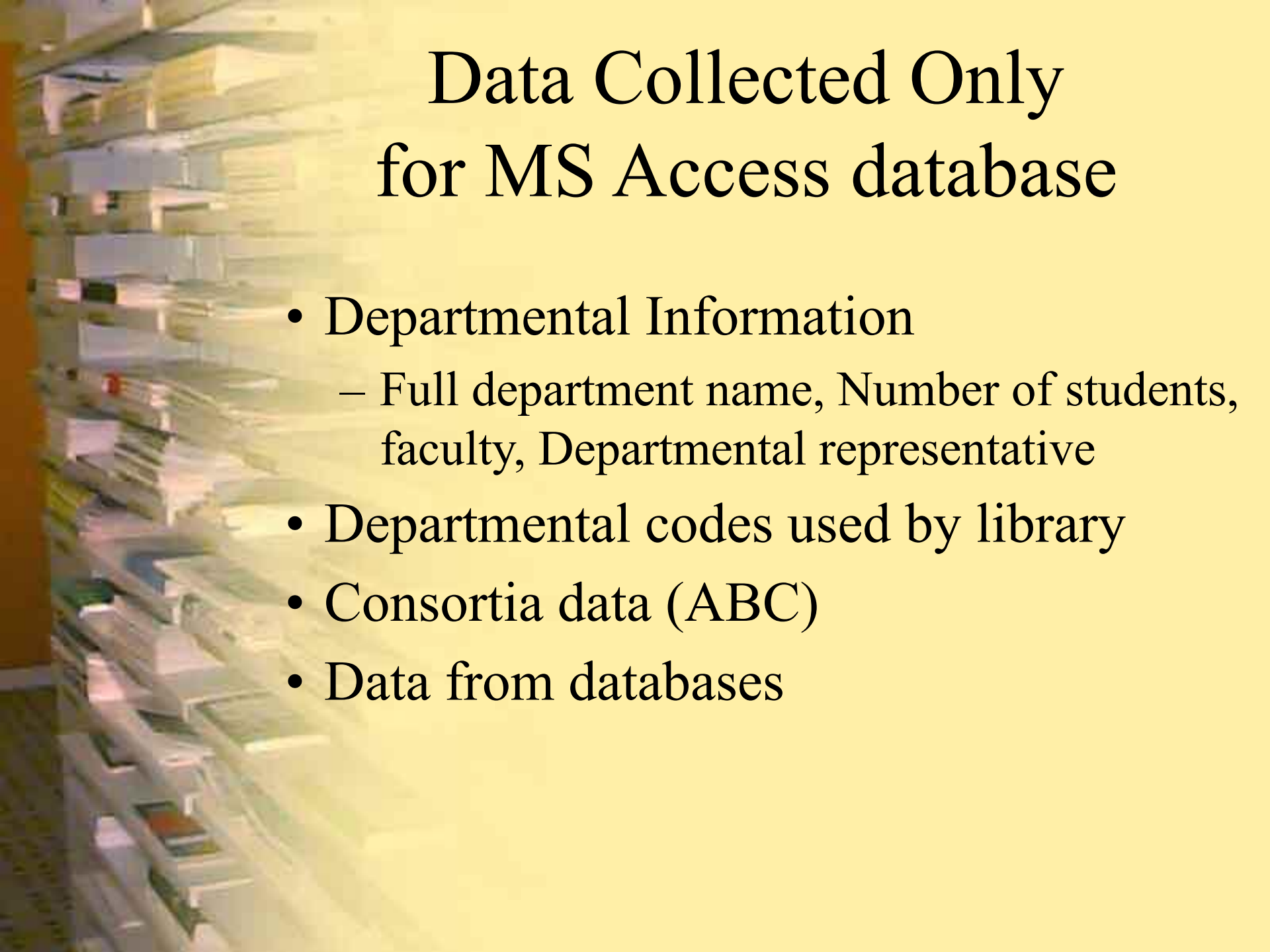
Cleaning Up after Successfully Downloading

- Resetting IUSE to zero for all item records
- Deleting the many transfer files
 - On Innopac and locally
- Deleting create lists
- Backing up database



Collecting other Data from Innopac

- Cost/price information
 - Done yearly
- Department assignments



Data Collected Only for MS Access database

- Departmental Information
 - Full department name, Number of students, faculty, Departmental representative
- Departmental codes used by library
- Consortia data (ABC)
- Data from databases

Major Tables in MS Access

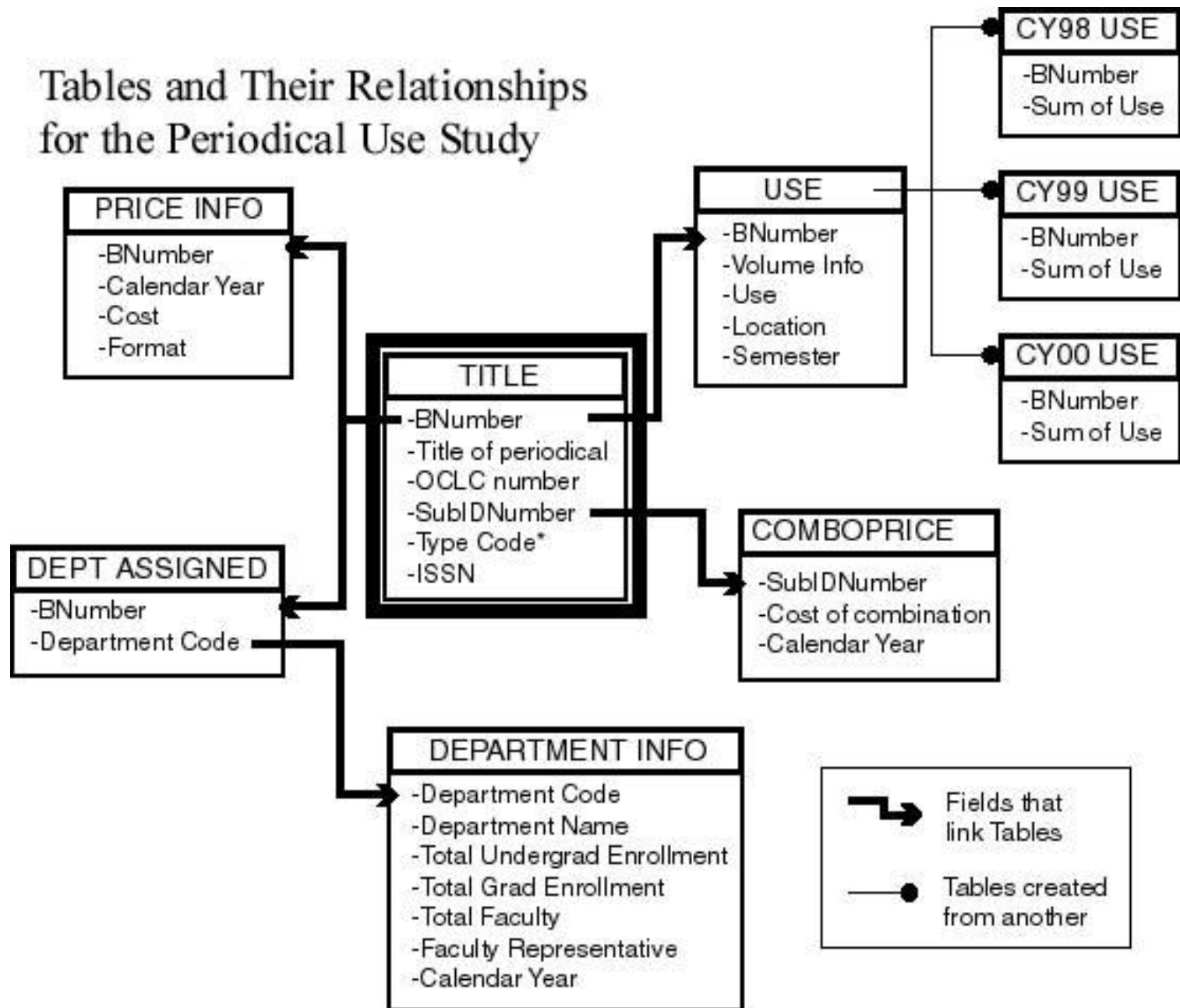
- Title
- Use
- Price
- Department assignments
- Department info (Department code key)
- Combo Price



Major Indexing of MS Access

- Most tables are indexed by the Innopac bnumber
 - That is the bibliographic number assigned by the library system software (NOT the OCLC number)

Tables and Their Relationships for the Periodical Use Study



*Type Code denotes the type of subscription; r=regular, d=dead, c=combine

Some of the Problems

- Sorting reports by title
 - Had to add a shelf list field (not use 245)
- Multiple bib records attached to one item
 - Make massaging data challenging
- Adding new bib numbers to database
 - Have to keep track of new titles added to III
 - Add them directly into the database by hand
- Dividing by zero (creating functions)

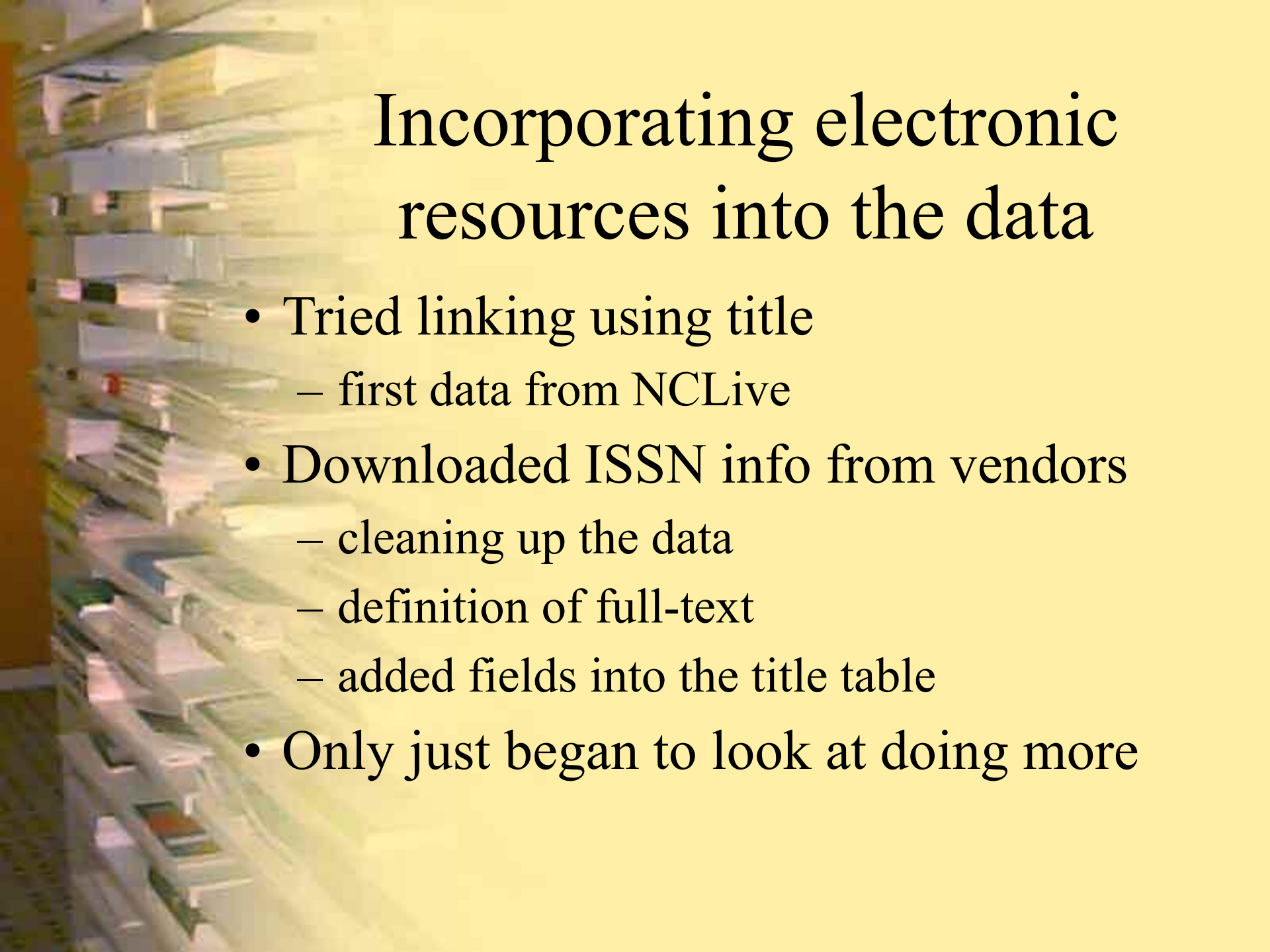
Advent and purchase of NCLive and other periodical databases

- Happened after our use study started



Your Library Link
To The World





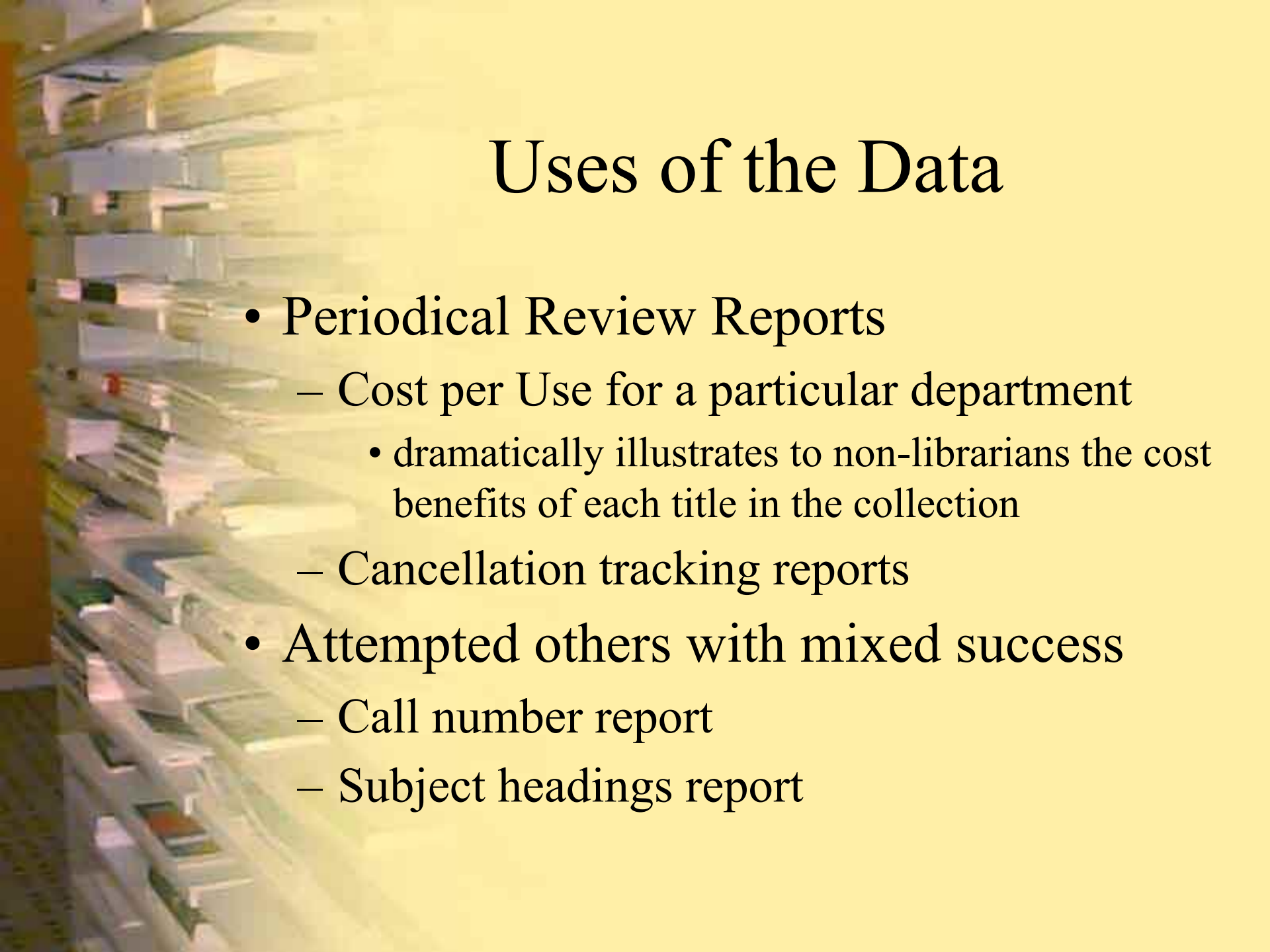
Incorporating electronic resources into the data

- Tried linking using title
 - first data from NCLive
- Downloaded ISSN info from vendors
 - cleaning up the data
 - definition of full-text
 - added fields into the title table
- Only just began to look at doing more



Comparing Apples with Oranges

- Providers of electronic resources don't often tabulate usage by title of journal used
 - Count “use” by database hits
 - What is a hit?
- Are there other factors affecting periodical use? (we want to look at these...)
 - Gate count, reference questions, service desk statistics, overall library usage



Uses of the Data

- Periodical Review Reports
 - Cost per Use for a particular department
 - dramatically illustrates to non-librarians the cost benefits of each title in the collection
 - Cancellation tracking reports
- Attempted others with mixed success
 - Call number report
 - Subject headings report

Periodical Review Report for: Natural Resource Mgmt

This report does not include combined titles or memberships.

Title	Year	Use	Cost	Cost per Use	Network?*	Electronic
AMERICAN FORESTS					A,B,C	Y
	CY1998	39	\$31.27	\$0.80		
	CY1999	17	\$31.27	\$1.84		
	CY2000	18	\$31.00	\$1.72		
FOREST SCIENCE					B*,C	
	CY1998	18	\$151.15	\$8.40		
	CY1999	12	\$151.15	\$12.60		
	CY2000	9	\$151.00	\$16.78		
GEOWORLD					A,C	
	CY1998	0	\$57.14			
	CY1999	2	\$57.14	\$28.57		
	CY2000	1	\$57.00	\$57.00		
INTERNATIONAL JOURNAL OF GEOGRAPHICAL INFORMATION SCIENCE					B,C	
	CY1999	1	\$39.00	\$39.00		
	CY2000	0	\$43.00			

CY 98 -- Total cost:\$1,704.13

Total use: 149

Average cost per use: \$11.44

CY 99 -- Total cost:\$1,785.32

Total use: 107

Average cost per use: \$16.69

CY 00 -- Total cost:\$1,936.00

Total use: 70

Average cost per use: \$27.66

(Average cost per use does not include zero use)

* A=Asheville, B=Boone, C=Cullowhee, +=partical holdings

Sample Report of Titles

Periodical Title	Number	FT	Cost CY2000	Sp1998	Su1998	Fa1998	CY1998	Sp1999	Su1999	Fa1999	CY1999	Sp2000	Su2000	Fa2000	CY2000	Total Use during study	Change in Use CY98 to CY00
BUSINESS WEEK	b16950045	Y	\$304.70	173	20	89	282	54	7	81	142	17	10	31	38	482	-224
CHARLOTTE OBSERVER (1916-1989)	b20187130		\$0.00	0	0	0	0	38	4	23	65	12	1	68	81	146	81
CHILD ABUSE AND NEGLECT	b16993718		\$1,188.00	4	14	10	28	5	20	12	37	23	0	73	96	161	68
CHILD DEVELOPMENT	b16950914		\$356.51	94	33	102	229	89	39	43	171	40	7	37	84	484	-145
CHRISTIANITY TODAY	b16951128	Y	\$21.00	9	4	6	19	1	0	2	3	3	31	17	51	73	32
HEALTH(1992-)	b17074216	Y	\$47.00	2	0	5	7	1	0	2	3	19	13	17	49	39	42
JOURNAL OF PHYSICAL EDUCATION, RECREATION AND DANCE	b17024705	Y	\$155.00	35	1	50	86	56	6	65	127	81	6	36	123	336	37
JOURNAL OF SPEECH AND HEARING RESEARCH	b16966272		\$0.00	139	5	122	286	90	0	69	139	38	13	53	104	549	-182
NATIONAL GEOGRAPHIC	b17016307	Y	\$28.00	168	20	93	281	61	9	57	127	48	11	43	102	510	-179
NEW YORK TIMES	b16961377	Y	\$4,369.94	177	161	465	803	377	50	466	893	295	33	641	969	2665	166
NEWS AND OBSERVER (RALEIGH, NC :1894)	b17054710	Y	\$2,607.92	10	0	103	113	65	2	90	157	23	39	85	147	417	34
NEWSWEEK	b16967963	Y	\$204.70	211	51	162	424	116	73	163	352	75	28	94	197	973	-227
NORTH CAROLINA HISTORICAL REVIEW	b16968025		\$32.00	29	5	58	92	29	8	38	95	19	42	67	128	315	36
PSYCHOLOGICAL REPORTS	b16944185		\$325.00	105	28	106	239	61	10	52	123	45	6	38	89	451	-150
RURALITE(SYLVA, NC)	b17074319		\$0.00	4	0	8	12	4	12	7	23	24	6	15	45	80	33
SCIENCE NEWS	b16985552	Y	\$86.00	42	143	48	233	27	11	13	51	7	41	9	57	341	-176
SPORTS ILLUSTRATED	b1697072x	Y	\$285.00	173	40	139	352	62	14	87	163	60	5	21	86	601	-266
SYLVA HERALD AND RURALITE(SYLVA, NC)	b17242253		\$300.00	16	2	30	48	43	43	18	104	70	23	49	142	294	94
TIME	b16971267	Y	\$243.00	199	36	140	375	94	49	121	264	68	30	86	184	823	-191
VANITY FAIR (NEW YORK)	b17035156		\$17.00	124	12	57	193	38	9	38	105	30	3	12	45	343	-148



The data we gathered

- 4734 periodical titles were tracked over the past 3 years
 - dead titles (ceased and cancelled)
 - current subscriptions
 - microfilm
 - bound volumes
 - current, unbound issues
 - excluded currently received newspapers, but does include newspapers on microfilm

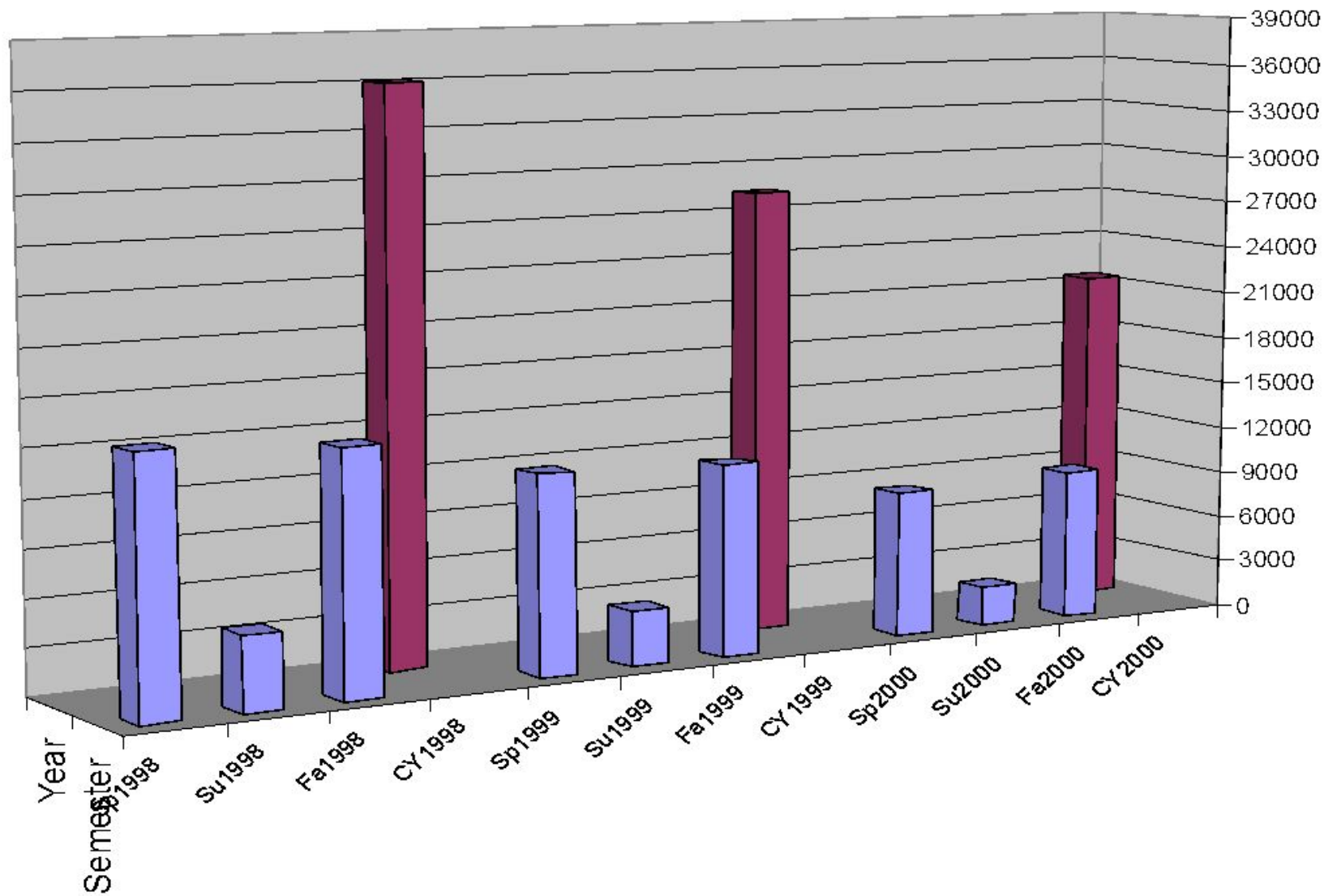


Overall decrease of use

- Accelerating each year
 - Down 21.6% between 1998 and 1999
 - Down 24.3% between 1999 and 2000

Total Use

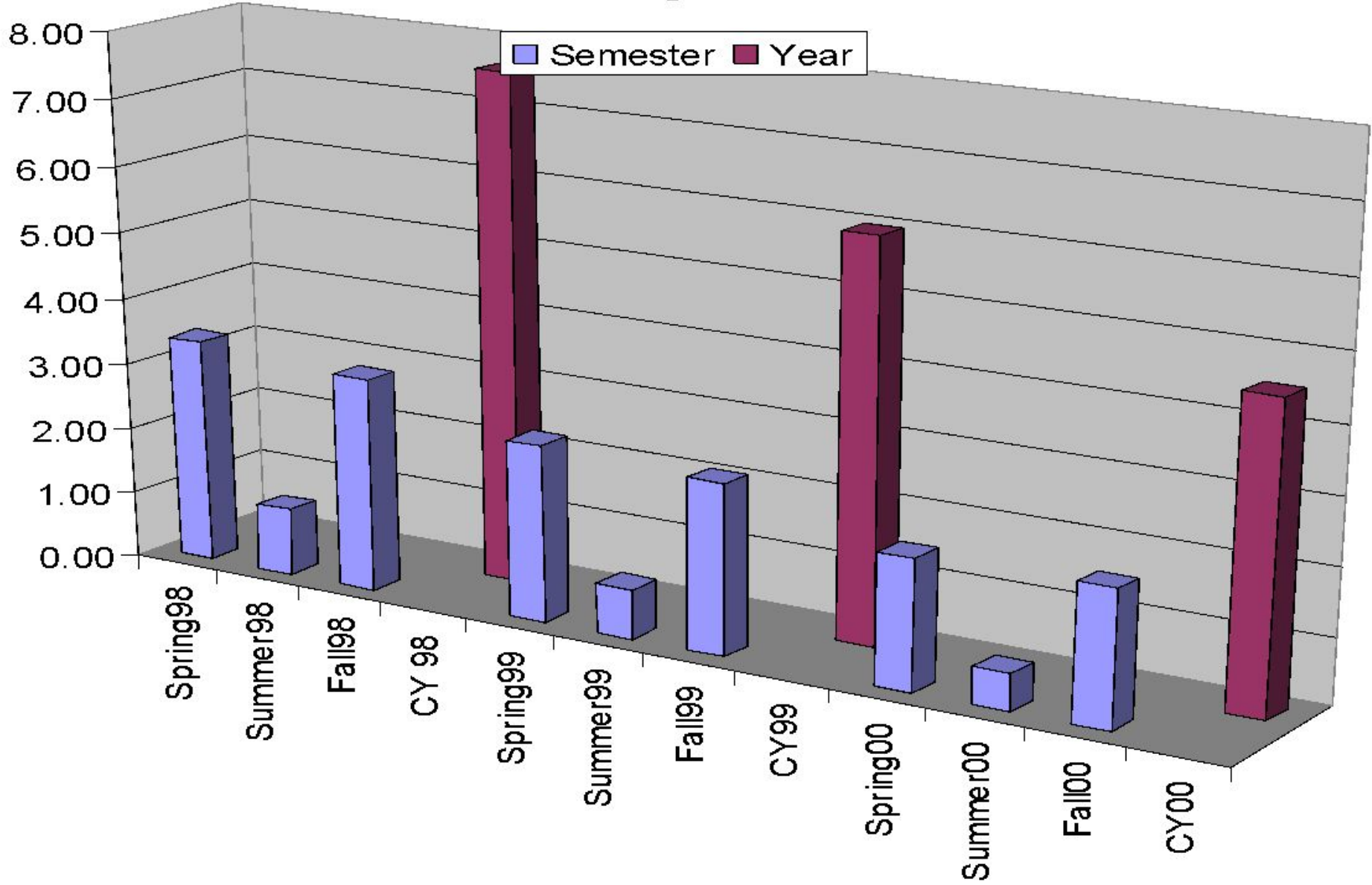
Semester Year



Average Use per title

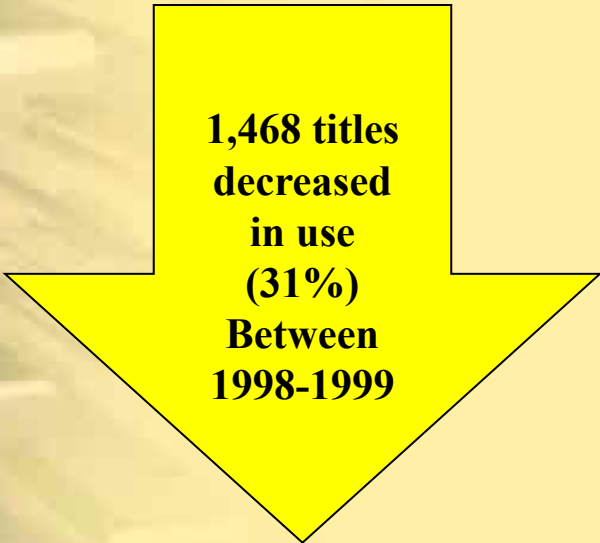
- Decreased each year (total use/number of titles)
 - 7.62 in '98, 5.98 in '99 and 4.53 in '00
- Titles with average or less uses decreased
 - 3,830 titles in '98, (81%) 3,803 titles in '99 (80%), and 3756 titles in '00 (79%)
- ILL might be a more efficient solution for more than 70% of the collection!

Average Use

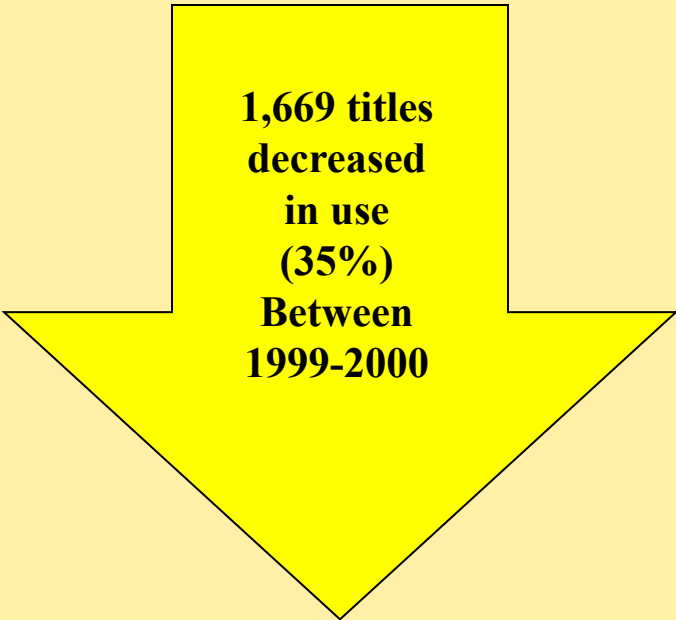


Titles with decreased use

- Not only were fewer titles used, but those used were used less often



**1,468 titles
decreased
in use
(31%)
Between
1998-1999**



**1,669 titles
decreased
in use
(35%)
Between
1999-2000**

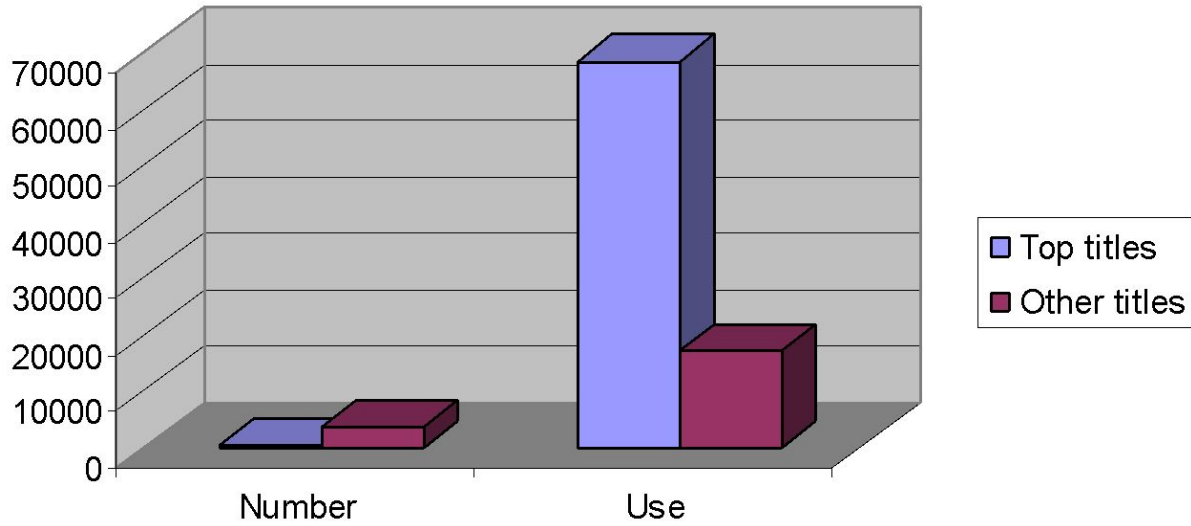
Intermittent Use

- Title use fluctuates greatly over time
- Brief use studies will miss vital data
 - For example:
 - While 1,594 titles had zero use throughout study, in '98 - 2364 had zero use, in '99 - 2,296 had zero use, in '00 - 2569 had zero use
 - Of the 4734 titles, 3,842 (81%) had 2 consecutive semesters of zero use
 - 112 titles had two consecutive semesters of zero use followed by a semester of more than five uses
- Studies should cover extended periods to provide a realistic picture of the data

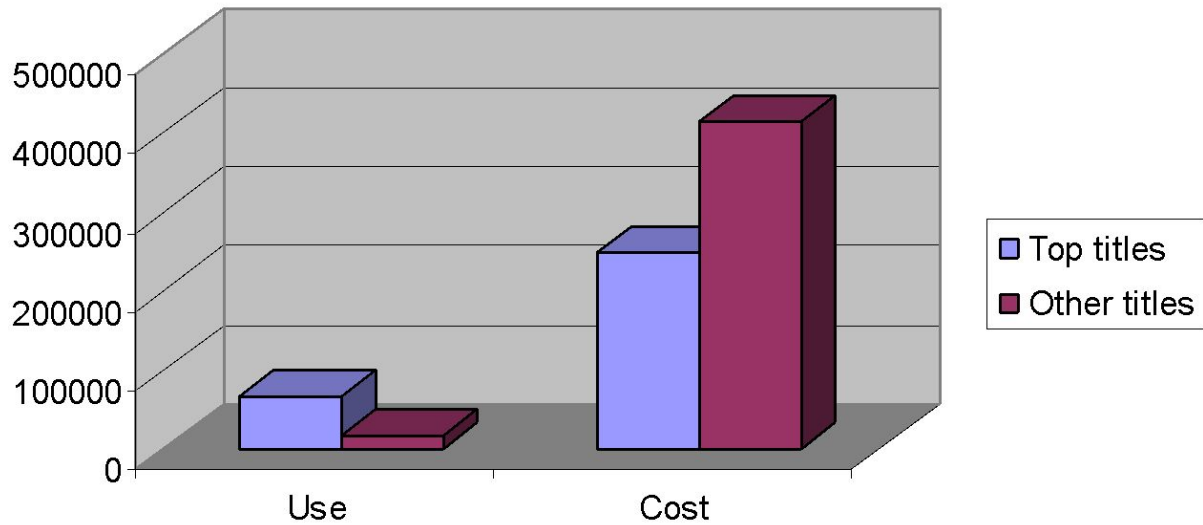
80/20 rule

- We looked at what portion of the title received 80% of the total use during the study
 - 15% of the titles (728 of the 4734 titles) received 80% of the use (68,684 of the 85,855 uses)
 - Total cost of those 728 titles was \$250,110 or 38% of our annual budget
 - 62% of the serials budget is supporting only 20% of the use

Comparing Number of Titles/Use



Comparing Use/Cost



Titles with Electronic Equivalents

- Looked at top 100 titles that decreased
 - 59% have electronic equivalents
- Looked at top 100 titles that increased
 - 27% have electronic equivalents
- More data is needed to prove cause/effect but we think there is a link

What's next

- Just completed a large cancellation project
 - Figure out how to incorporate this into our database
- Want to look in-depth at title(s) to attempt to find out more about how the electronic databases figure into use
- Looking at other data to incorporate
 - ILL and ABC express
- Thinking about a monograph use study

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